



## Science at Wren's Nest Primary School

Our Vision and Principles for Science at Wren's Nest Primary School is to encourage curiosity in children, so that they can ask questions that fuel explorations and investigations about the universe we live in.

*As Albert Einstein said, 'The important thing is to never stop questioning'.*

By working scientifically our children develop the skills to question, enquire, evaluate and conclude in their research and experiments. Science contributes to a child's intellectual development by equipping them with knowledge of the world around them and skills in which to enquire. We want to encourage our children to be ambitious and be aware of STEM related career opportunities. Our high-quality tailored curriculum is led by a STEM Ambassador and supported by our Science Advisor, who is a scientist at a local university.



### Big Ideas

- ✓ Questioning
- ✓ Planning
- ✓ Evaluating
- ✓ Predicting
- ✓ Observing
- ✓ Measuring
- ✓ Inferring
- ✓ Concluding
- ✓ Evaluating
- ✓ Communication
- ✓ Outdoor Learning
- ✓ Investigating
- ✓ Enquiry
- ✓ Fair testing



### Content and Sequencing

Each topic has been specifically named to ignite the interest of the children and bring excitement to the topic.

#### Year 1

Seasonal Changes - Why do Snowmen melt in Summer?  
 Animals including Humans - What makes me, me?  
 Uses of everyday materials - Messy Materials  
 Plants - Let's Grow!

#### Year 2

Materials and their properties - Bricks, sticks and other bits  
 Living things and their habitats - It's Alive!  
 Plants - Seeds, Soil and Sunshine  
 Animals including Humans - Me, you and Animals too!

#### Year 3

Rocks and Soils - School of Rocks  
 Forces and Magnets - Force Fields  
 Plants - Let it grow!  
 Animals including Humans - Funny Bones  
 Light - Time to Shine

#### Year 4

Animals including Humans - Chew it and Poo it!  
 Electricity - Bright Sparks  
 States of Matter - What's the 'Matter'?  
 Sound - Freaky Frequency  
 Living Things and their Habitats - Super Species

#### Year 5

Earth and Space - To Infinity and Beyond  
 Properties and changes of Materials - Radical Reactions  
 Living things and their Habitats - The Circle of Life  
 Animals including Humans - Who do you think you are?  
 Forces - May the Force be with you

#### Year 6

Evolution and Inheritance - Darwin's Dilemma  
 Living things and their habitats - Do you want to be in my 'Class'?  
 Animals including Humans - Awesome Anatomy  
 Light - Bright Ideas  
 Electricity - Circuit Training



### Cross curricular links

- ✓ Direct links with:
  - History
  - Computing
  - Maths
  - Literature
  - British Values
  - PSHE
  - Geography
  - Enrichment activities e.g. a visit to Wren's Nest Nature Reserve.



### Retrieval

- ✓ Quizzes
- ✓ Tasks and activities
- ✓ Big Questions
- ✓ Schemas
- ✓ Debates
- ✓ Wow Days
- ✓ Hinge Questions



### Progress

- ✓ Low-stake quizzes
- ✓ End of unit challenges
- ✓ Formative assessments
- ✓ Summative assessments using the school's OTrack Assessment system.
- ✓ Children's books
- ✓ Content mapping of the skills and knowledge of the curriculum
- ✓ Increase in the use of scientific language and concepts
- ✓ Working Wall
- ✓ Photographs and videos



### Support

- ✓ Inclusion for all children.
- ✓ Children in provision sets to access strength lessons in year groups
- ✓ Tiered Vocabulary
- ✓ Differentiated activities based on scientific skills and knowledge.
- ✓ Groups across school
- ✓ Adult support in the classrooms
- ✓ Working Walls
- ✓ ICT based resources, such as iPads

<ul style="list-style-type: none"> <li>✓ Wren's Nest Schema Webs of food, fashion and technology.</li> </ul>		<ul style="list-style-type: none"> <li>✓ School website showcasing videos created by classes</li> <li>✓ Golden Nuggets</li> <li>✓ Pre-Topic Mindmaps</li> </ul>	<ul style="list-style-type: none"> <li>✓ Science planning tailored to the needs of our SEND and SEMH groups</li> <li>✓ CPD for staff</li> <li>✓ Work with a STEM ambassador</li> </ul>
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